

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/03/98
Date Received: 01/27/98
Project: Metro Grab, PO #M59861
Date Extracted: 01/29/98
Date Analyzed: 01/29/98

**RESULTS FROM THE ANALYSIS OF THE WATER SAMPLE
FOR TOTAL METALS BY
INDUCTIVELY COUPLED PLASMA (ICP)
(METHOD 6010)**

Results Reported as mg/L (ppm)

<u>Sample ID</u>	<u>M59861</u>	<u>Method Blank</u>
Analyte:		
Chromium	0.30	<0.05
Copper	0.20	<0.05
Nickel	0.15	<0.05
Zinc	<0.05	<0.05

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QUALITY ASSURANCE RESULTS FOR TOTAL METALS BY INDUCTIVELY COUPLED PLASMA (ICP) (METHOD 6010)

Laboratory Code: 801043-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Chromium	mg/L (ppm)	0.72	0.97	30 vo	0-20
Copper	mg/L (ppm)	0.54	0.67	21 vo	0-20
Nickel	mg/L (ppm)	0.75	0.73	3	0-20
Zinc	mg/L (ppm)	<0.05	0.06	nm	0-20

Laboratory Code: 801043-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	% Recovery MS	% Recovery MSD	Acceptance Criteria	RPD
Chromium	mg/L (ppm)	5	0.72	103	110	80-120	7
Copper	mg/L (ppm)	5	0.54	96	99	80-120	3
Nickel	mg/L (ppm)	10	0.75	105	104	80-120	1
Zinc	mg/L (ppm)	5	<0.05	94	102	80-120	8

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	% Recovery LCS	% Recovery LCSD	Acceptance Criteria	RPD
Chromium	mg/L (ppm)	5	103	102	80-120	1
Copper	mg/L (ppm)	5	104	104	80-120	0
Nickel	mg/L (ppm)	10	105	105	80-120	0
Zinc	mg/L (ppm)	5	107	106	80-120	1

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

vo - The value reported fell outside the control limits established for this analyte.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Charlene Jensen, M.S.
Bradley T. Benson, B.S.
Kurt Johnson, B.S.

3012 16th Avenue West
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February 3, 1998

DUPLICATE COPY

INVOICE #98ACU0203-2

Accounts Payable
Alaskan Copper Works
628 South Hanford St.
Seattle, WA 98134

**RE: Project Metro Grab, PO #M59861: Results of testing requested by
Gerry Thompson for material submitted on January 27, 1998.**

**1 water sample analyzed for
Chromium, Copper, Nickel, and Zinc
using Method 6010 @ \$65 per sample**

\$ 65.00

Amount Due

\$ 65.00

FEDERAL TAX ID (b) (6)

FRIEDMAN & BRUYA, INC.

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Seattle, WA 98119-2029
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February 3, 1998

**Gerry Thompson, Project Manager
Alaskan Copper Works
628 South Hanford St.
Seattle, WA 98134**

Dear Mr. Thompson:

**Included are the results from the testing of material submitted on January 27, 1998
from your Metro Grab, PO #M59861 project.**

**We appreciate this opportunity to be of service to you and hope you will call if you
should have any questions.**

Sincerely,

FRIEDMAN & BRUYA, INC.

A handwritten signature in black ink, appearing to be 'Kurt Johnson', with a stylized flourish extending to the right.

**Kurt Johnson
Chemist**

**Enclosures
ACU0203R.DOC**